

AGRICULTURAL CHEMICAL USE IN WISCONSIN, 1998

This publication presents data from surveys funded by the USDA Pesticide Data Program. The purpose of this program is to provide reliable pesticide use statistics and enhance the quality of information on pesticide residues in food.

SURVEY PROCEDURES

Vegetable operations were randomly selected from the Wisconsin Agricultural Statistics Service (WASS) list of farm operators. Farmers and custom operators were personally interviewed in the fall to gather information on fertilizers and chemicals used on their vegetable crops, as well as application rates.

Corn and potato fields were randomly selected so that a particular field represented a farm's total acres planted to that crop. Farmers and custom operators were personally interviewed to gather information on chemicals used and application rates. Interviews were conducted late in the season or after planned applications were complete.

Planted Acres and Percent of Acres Treated with Agricultural Chemicals, by Crop, Wisconsin, 1998

Crop	Acres planted	Area receiving 1/		
		Herbicides	Insecticides	Fungicides
	1,000	Percent		
Cabbage				
Fresh market 2/	4.8	98	99	
Kraut	2.6	100	100	
Carrots	4.2	100	100	100
Cucumbers 2/	4.3	100		
Field corn	3,700.0	97	24	
Onions	2.1	100	95	99
Lima beans	7.9	99	87	13
Green peas	57.4	93	18	
Potatoes	84.5	96	97	99
Snap beans	66.9	96	87	39
Strawberries	1.2	95	87	78
Sweet corn				
Fresh market 2/	8.7	87	77	
Processing 2/	111.6	97	76	

1/Refers to acres receiving one or more applications of a specific pesticide class. 2/Insufficient reports to publish data for one or more of the pesticide classes. Source: Wisconsin Agricultural Statistics Service

POTATOES: Ninety-six percent of Wisconsin's potato acreage received herbicide treatment in 1998. The most common was metribuzin (Sencor), used on 71 percent of the acreage. Insecticides were applied to 97 percent of the acreage. Dimethoate and imidacloprid (Admire) were both used on 44 percent of the acreage. Nearly all of the potato acreage in Wisconsin had some kind of fungicide applied to it. Chlorothalonil (Bravo) was the most common, being applied to 90 percent of the acreage.

Major Chemical Use on Potatoes Wisconsin, 1998 1/

Agricultural chemicals Common name (Trade name)	Area applied	Appli- cations	Rate per appli- cation	Total applied
	Percent	Number	Lbs/Acre	1,000 Lbs
Herbicides:				
Glyphosate (Ranger, Rattler, Rodeo, Roundup)	16	1.0	0.67	9
Linuron (Lorox)	18	1.1	0.84	14
Metolachlor (Dual)	14	1.0	1.02	12
Metribuzin (Lexone, Sencor)	71	1.1	0.47	33
Pendimethalin (Prowl)	24	1.0	0.80	16
Rimsulfuron (Basis)	36	1.0	0.02	1
Insecticides:				
Dimethoate	44	1.5	0.41	23
Endosulfan (Thiodan)	27	1.1	0.90	24
Esfenvalerate (Asana)	72	1.7	0.04	5
Imidacloprid (Admire)	44	1.6	0.14	9
Methamidophos (Monitor)	21	1.0	0.92	18
Permethrin (Ambush, Pounce)	10	1.2	0.16	2
Piperonyl butoxide (Butacide)	33	1.6	0.30	14
Pyrethrins	9	2.2	0.01	2/
Fungicides:				
Azoxystrobin (Abound, Quadris)	23	1.3	0.10	3
Chlorothalonil (Bravo)	90	8.1	0.83	514
Copper hydroxide	17	3.4	0.42	21
Cymoxanil (Curzate)	18	1.6	0.12	3
Mancozeb	81	6.0	1.06	438
Metalaxyl (Ridomil)	12	1.3	0.52	7
Triphenyltin hydrox.	43	2.8	0.11	11
Other Chemicals:				
Diquat	83	1.4	0.31	32
Maleic hydrazide (Royal MH-30, Super Sprout Stop)	4	1.0	1.34	4
Metam-sodium (Vapam)	18	1.0	121.27	1,895

1/Planted acres in 1998 for Wisconsin were 84,500 acres. 2/Total applied is less than 1,000 pounds. Source: Wisconsin Agricultural Statistics Service

FIELD CORN: Herbicides were applied to 97 percent of Wisconsin's field corn acreage in 1998. Atrazine was the most common, being used on 56 percent of the acreage. Almost one-quarter of the corn acreage received some type of insecticide treatment. Chlorpyrifos (Lorsban) and tefluthrin (Force) were the most common used in Wisconsin.

Major Chemical Use on Field Corn Wisconsin, 1998 1/

Agricultural chemicals Common name (Trade name)	Area applied	Appli- cations	Rate per appli- cation	Total applied
	Percent	Number	Lbs/Acre	1,000 Lbs
Herbicides:				
Acetochlor (Harness)	18	1.0	1.66	1,081
Atrazine (AAtrex)	56	1.0	0.87	1,789
Cyanazine (Bladex, Conquest, Cycle, Extrazine)	11	1.0	1.51	634
Dicamba (Banvel)	19	1.0	0.35	252
Dicamba, Potassium Salt (Marksman)	32	1.0	0.41	487
Dimethenamid (Frontier, Guardsman)	28	1.0	1.31	1,352
Flumetsulam (Broadstrike)	13	1.0	0.05	24
Metolachlor (Dual)	22	1.0	1.96	1,578
Insecticides:				
Chlorpyrifos (Dursban, Lorsban)	9	1.0	1.04	359
Tefluthrin (Force)	4	1.0	0.11	18

1/Planted acres in 1998 for Wisconsin were 3.70 million acres. Source: Wisconsin Agricultural Statistics Service

Major Chemical Use on Carrots Wisconsin, 1998 1/

Agricultural chemicals Common name (Trade name)	Area applied	Appli- cations	Rate per appli- cation	Total applied
	Percent	Number	Lbs/Acre	1,000 Lbs
Herbicides:				
Fluazifop-P-butyl (Fusilade)	62	1.1	0.17	0.5
Linuron (Linex, Lorox)	99	2.9	0.46	5.5
Metribuzin (Axiom, Lexone, Sencor)	70	1.2	0.14	0.5
Insecticides:				
Esfenvalerate (Asana)	91	4.8	0.03	0.6
Fungicides:				
Chlorothalonil (Bravo, Daconil)	100	4.8	1.23	25.2

1/Planted acres in 1998 for Wisconsin were 4,200 acres. Source: Wisconsin Agricultural Statistics Service

Major Chemical Use on Cabbage for Fresh Market Wisconsin, 1998 1/

Agricultural chemicals Common name (Trade name)	Area applied	Appli- cations	Rate per appli- cation	Total applied
	Percent	Number	Lbs/Acre	1,000 Lbs
Herbicides:				
Trifluralin (Treflan, Trific, Trilin)	97	1.0	0.75	3.5
Insecticides:				
Bt (Bacillus thur.) 2/ Lambda-cyhalothrin (Karate, Saber, Warrior)	66	1.0	—	—
Permethrin (Ambush, Pounce)	97	2.0	0.02	0.2
	68	1.2	0.15	0.6

1/Planted acres in 1998 for Wisconsin were 4,800 acres. 2/Rates and total applied are not available because amounts of active ingredient are not comparable between products. Source: Wisconsin Agricultural Statistics

Major Chemical Use on Cabbage for Kraut Wisconsin, 1998 1/

Agricultural chemicals Common name (Trade name)	Area applied	Appli- cations	Rate per appli- cation	Total applied
	Percent	Number	Lbs/Acre	1,000 Lbs
Herbicides:				
Clomazone (Command)	83	1.0	0.16	0.4
Trifluralin (Treflan, Trific, Trilin)	93	1.0	0.82	2.0
Insecticides:				
Lambda-cyhalothrin (Karate, Saber, Warrior)	77	2.5	0.02	0.1

1/Planted acres in 1998 for Wisconsin were 2,600 acres. Source: Wisconsin Agricultural Statistics Service

GREEN PEAS: Wisconsin's green pea crop received herbicide treatment on 93 percent of the acreage in 1998. Imazethapyr (Pursuit) was applied to 40 percent of the acreage. Eighteen percent of the green pea acres received an insecticide treatment. Esfenvalerate (Asana) was the most common.

Major Chemical Use on Green Peas for Processing Wisconsin, 1998 1/

Agricultural chemicals Common name (Trade name)	Area applied	Appli- cations	Rate per appli- cation	Total applied
	Percent	Number	Lbs/Acre	1,000 Lbs
Herbicides:				
Bentazon (Basagran, Pledge)	14	1.0	0.86	7.3
Imazethapyr (Pursuit)	40	1.0	0.02	0.5
MCPB (Thistrol)	20	1.0	0.65	7.4
Pendimethalin (Prowl)	35	1.0	0.65	13.7
Trifluralin (Treflan, Trific, Trilin)	20	1.0	0.55	6.2
Insecticides:				
Esfenvalerate (Asana)	9	1.0	0.04	0.2

1/Planted acres in 1998 for Wisconsin were 57,400 acres. Source: Wisconsin Agricultural Statistics Service

**Major Chemical Use on Cucumbers
Wisconsin, 1998 1/**

Agricultural chemicals Common name (Trade name)	Area applied	Appli- cations	Rate per appli- cation	Total applied
	Percent	Number	Lbs/Acre	1,000 Lbs
Herbicides: Naptalam (Alanap)	69	1.0	2.09	6.2

1/Planted acres in 1998 for Wisconsin were 4,300 acres. Source:
Wisconsin Agricultural Statistics Service

**Major Chemical Use on Onions
Wisconsin, 1998 1/**

Agricultural chemicals Common name (Trade name)	Area applied	Appli- cations	Rate per appli- cation	Total applied
	Percent	Number	Lbs/Acre	1,000 Lbs
Herbicides: Bromoxynil (Brominal, Buctril)	77	1.1	0.07	0.1
Fluzaiop-P-butyl (Fusilade)	87	1.1	0.18	0.4
Pendimethalin (Prowl)	99	2.0	1.96	8.3
Sethoxydim (Poast)	19	2.3	0.26	0.2
Insecticides: Lambda-cyhalothrin (Karate, Saber, Warrior)	84	2.7	0.02	0.1
Fungicides: Iprodione (Rovral)	91	1.9	0.41	1.6
Mancozeb	99	4.2	1.73	15.4

1/Planted acres in 1998 for Wisconsin were 2,100 acres. Source:
Wisconsin Agricultural Statistics Service

**Major Chemical Use on Lima Beans for Processing
Wisconsin, 1998 1/**

Agricultural chemicals Common name (Trade name)	Area applied	Appli- cations	Rate per appli- cation	Total applied
	Percent	Number	Lbs/Acre	1,000 Lbs
Herbicides: Bentazon (Basagran, Pledge)	24	1.0	1.00	2.0
Imazethapyr (Pursuit)	90	1.0	0.02	0.1
Pendimethalin (Prowl)	46	1.0	1.02	3.7
Sethoxydim (Poast)	21	1.0	0.19	0.3
Trifluralin (Treflan, Trific, Trilin)	36	1.0	0.59	1.7
Insecticides: Acephate (Orthene, Payload)	54	1.9	0.75	6.3
Dimethoate	33	1.2	0.25	0.8

1/Planted acres in 1998 for Wisconsin were 7,900 acres. Source:
Wisconsin Agricultural Statistics Service

**Major Chemical Use on Strawberries
Wisconsin, 1998 1/**

Agricultural chemicals Common name (Trade name)	Area applied	Appli- cations	Rate per appli- cation	Total applied
	Percent	Number	Lbs/Acre	1,000 Lbs
Herbicides: 2, 4-D	47	1.1	0.84	0.6
Napropamide (Devrinol)	39	1.0	3.55	1.7
Sethoxydim (Poast)	55	1.2	0.16	0.1
Terbacil (Sinbar)	65	1.8	0.23	0.3
Insecticides: Chlorpyrifos (Dursban, Lorsban)	49	1.0	0.94	0.6
Endosulfan (Thiodan)	31	1.0	0.93	0.4
Malathion	36	1.0	1.22	0.5
Methoxychlor	13	1.0	0.85	0.1
Fungicides: Benomyl (Benlate)	55	1.9	0.38	0.5
Captan	64	2.6	1.80	3.7
Iprodione (Rovral)	20	1.2	0.71	0.2

1/Planted acres in 1998 for Wisconsin were 1,200 acres. Source:
Wisconsin Agricultural Statistics Service

SNAP BEANS: Herbicides were applied to 96 percent of Wisconsin's snap beans for processing acreage in 1998. Two-thirds of the acreage received a treatment of trifluralin (Treflan). Eighty-seven percent of the acreage was treated with an insecticide. Acephate (Orthene) was applied to 74 percent of the acreage. Fungicides were used on 39 percent of the snap bean acreage. Copper hydroxide and benomyl were the most common.

**Major Chemical Use on Snap Beans for Processing
Wisconsin, 1998 1/**

Agricultural chemicals Common name (Trade name)	Area applied	Appli- cations	Rate per appli- cation	Total applied
	Percent	Number	Lbs/Acre	1,000 Lbs
Herbicides: Bentazon (Basagran, Pledge)	21	1.0	0.86	12.7
EPTC (Eptam, Eradicane, Genep)	43	1.0	2.65	80.2
Metolachlor (Dual)	39	1.0	1.51	40.3
Pendimethalin (Prowl)	11	1.0	1.08	7.9
Trifluralin (Treflan, Trific, Trilin)	67	1.0	0.59	28.4
Insecticides: Acephate (Orthene, Payload)	74	1.1	0.80	47.0
Dimethoate	33	1.0	0.42	10.0
Methyl parathion	26	1.4	0.51	12.5
Fungicides: Benomyl (Benlate)	10	1.0	0.79	5.6
Copper hydroxide	31	1.3	0.66	18.4

1/Planted acres in 1998 for Wisconsin were 66,900 acres. Source:
Wisconsin Agricultural Statistics Service

SWEET CORN: In 1998, herbicides were applied to 97 percent of Wisconsin's processing sweet corn crop. Half of the acreage received a treatment of Atrazine. About three-quarters of the acreage received an insecticide treatment. Permethrin (Ambush, Pounce) was the most common, being applied to 46 percent of the acreage.

**Major Chemical Use on Sweet Corn for Processing
Wisconsin, 1998 1/**

Agricultural chemicals Common name (Trade name)	Area applied	Appli- cations	Rate per appli- cation	Total applied
	Percent	Number	Lbs/Acre	1,000 Lbs
Herbicides:				
Alachlor (Lasso)	31	1.0	1.85	67.5
Atrazine (AAtrex)	50	1.0	0.70	41.6
Bentazon (Basagran, Pledge)	12	1.0	0.96	12.8
Cyanazine (Bladex, Conquest, Cycle, Extrazine)	41	1.0	1.60	78.8
Dimethenamid (Frontier, Guardman)	15	1.0	1.37	23.3
Glyphosate (Ranger, Rattler, Rodeo, Roundup)	12	1.1	0.61	9.8
Metolachlor (Dual)	27	1.1	1.78	62.1
Nicosulfuron (Accent)	24	1.1	0.03	0.9
Insecticides:				
Lambda-cyhalothrin (Karate, Saber, Warrior)	35	2.4	0.03	2.4
Permethrin (Ambush, Pounce)	46	1.9	0.15	15.1

1/Planted acres in 1998 for Wisconsin were 111,600 acres. Source: Wisconsin Agricultural Statistics Service

**Major Chemical Use on Sweet Corn for Fresh Market
Wisconsin, 1998 1/**

Agricultural chemicals Common name (Trade name)	Area applied	Appli- cations	Rate per appli- cation	Total applied
	Percent	Number	Lbs/Acre	1,000 Lbs
Herbicides:				
Alachlor (Lasso)	18	1.1	1.88	3.3
Atrazine (AAtrex)	45	1.0	0.70	2.7
Bentazon (Basagran, Pledge)	16	1.0	0.70	1.0
Cyanazine (Bladex, Conquest, Cycle, Extrazine)	18	1.1	1.53	2.6
Dimethenamid (Frontier, Guardman)	37	1.0	1.07	3.4
Metolachlor (Dual)	18	1.0	1.88	2.9
Pendimethalin (Prowl)	10	1.0	1.13	0.9
Insecticides:				
Lambda-cyhalothrin (Karate, Saber, Warrior)	32	3.0	0.02	0.2
Permethrin (Ambush, Pounce)	53	1.9	0.13	1.1

1/Planted acres in 1998 for Wisconsin were 8,700 acres. Source: Wisconsin Agricultural Statistics Service

**Fertilizer Use on Selected Crops
Wisconsin, 1998 1/**

Fertilizer	Area applied	Applications	Rate per application	Total applied
	Percent	Number	Lbs/Acre	1,000 Lbs
CABBAGE FOR FRESH MARKET				
Nitrogen	100	1.2	111	659
Phosphate	100	1.0	121	611
Potash	99	1.0	123	618
CABBAGE FOR KRAUT				
Nitrogen	100	2.5	58	378
Phosphate	98	1.0	76	193
Potash	96	1.0	229	571
CARROTS				
Nitrogen	86	1.3	56	283
Phosphate	85	1.0	73	261
Potash	100	1.0	180	798
CUCUMBERS				
Nitrogen	100	3.0	28	372
Phosphate	100	1.0	34	145
Potash	100	1.2	61	315
FIELD CORN				
Nitrogen	97	1.8	52	326,800
Phosphate	96	1.0	40	148,200
Potash	96	1.1	49	188,000
ONIONS				
Nitrogen	100	1.4	72	222
Phosphate	96	1.1	87	205
Potash	100	1.7	162	590
GREEN PEAS FOR PROCESSING				
Nitrogen	89	1.5	26	1,983
Phosphate	79	1.0	41	1,991
Potash	90	1.0	68	3,798
LIMA BEANS FOR PROCESSING				
Nitrogen	95	1.4	36	397
Phosphate	84	1.0	41	271
Potash	92	1.0	63	474
SNAP BEANS FOR PROCESSING				
Nitrogen	100	1.8	32	3,998
Phosphate	97	1.1	43	3,076
Potash	99	1.2	57	4,800
STRAWBERRIES				
Nitrogen	90	3.5	31	119
Phosphate	80	1.9	48	90
Potash	80	1.6	36	56
SWEET CORN FOR FRESH MARKET				
Nitrogen	98	1.7	55	834
Phosphate	82	1.2	39	347
Potash	96	1.2	78	844
SWEET CORN FOR PROCESSING				
Nitrogen	99	2.2	57	14,429
Phosphate	94	1.0	48	5,253
Potash	91	1.2	69	8,595

Source: Wisconsin Agricultural Statistics Service